



Aqua Helix Sur

The Southern Vein

Teresa Loret de Mola

SOUTH AMERICA: The Southern Vein of Ancient Ice

In the deep south of the world, Antarctica bleeds pure water.

It is not a wound—it is a call.

South America, a continent of colossal rivers, sacred rains, and burning droughts, is now the chosen land to receive, protect, and return life to the water awakening from ice.

For the Indigenous peoples, water is not a resource nor property; it is a living being, a spirit, a mother, an elder, a sister, a path.

The Kogi call it the soul of the world.

The Aymara celebrate it in dances to Pachamama.

The Guaraní seek it as a mirror of the sky.

The Mapuche honor it as part of Itrofil Mongen, the sacred web of life.

Today, that wisdom guides us.

Because this is not merely a technical transfer—it is a continental act of reciprocity,

where the South embraces its peoples, and the water finds in them a new home.

The ice walks toward the rivers, and the rivers sing toward the future.

The Call of the Ice

When the ice cracks in Antarctica, it is not only the sound of climate—it is the deep echo of the planet remembering its ancient thirst.

The liquid vein born in the South does not seek to vanish into the sea.

It seeks a path, a purpose, a destiny.

South America presents itself not as a mere recipient, but as a returning artery—a geography that can channel this flow to recharge rivers, nourish aquifers, revive wetlands, and heal entire regions.

From the austral coasts—Puerto Williams, Ushuaia, Punta Arenas—a real possibility begins: to collect part of the meltwater from Antarctica and carefully redirect it to areas of the continent in need.

To achieve this, we propose a complementary dual strategy:

Channeling sub-Antarctic cold currents through passive, directed marine structures that guide freshwater flows toward natural catchment points—fiords, inlets, and restored coastal lagoons. These areas will serve as natural reservoirs for initial recharge.

Flexible, high-resistance pipelines placed along the seabed, extending from catchment points near Antarctica to Patagonian ports or coastal recharge stations.

This infrastructure can operate continuously and silently, respecting international treaties governing the polar region.

In this way, meltwater will not become waste or be forgotten, but a regenerative flow—feeding not only rivers and aquifers but also a new culture of hydric interdependence.

The South of the world will no longer be only the end—it will be a sacred source of aquatic rebirth.

The Journey Toward the Green Heart

Antarctica, silent for millennia, now sends its liquid breath northward.

It is not an invasion—it is a return. Not urgency, but resonance.

Antarctic water, guided by discreet and respectful channels, first reaches the southern Patagonian region, where the glaciers that still resist celebrate their reunion with the flow.

Here, the first recharge nodes are activated—inland valleys such as Aysén and Santa Cruz, areas wounded by desertification but still alive with a memory of water.

From there, the water rises and branches out in three vital directions:

1. The Andean Axis: Guardians of the Highlands

Following the ancient routes of the Qom and Aymara peoples, the water flows toward the highlands, where it nourishes semi-arid basins, replenishes high Andean wetlands, and infiltrates aquifers that feed the headwaters of the Pilcomayo, Bermejo, and Desaguadero rivers.

The Indigenous communities become guardians of the flow—they know when, how much, and how the Earth should drink.

2. The Amazon Basin: Lung and Mirror of the Sky

Another portion of the water finds its way to the headwaters of the Amazon River, where the hydrological balance teeters on collapse.

Here, recharge is not only ecological—it is a geopolitical and spiritual act.

The Kichwa, Asháninka, and Yanomami peoples see this arrival as the manifestation of an ancestral pact between the frozen South and the sacred forest.

The water becomes a seed of jungle.

3. The Paraná–Uruguay Basin: Productive and Cultural Artery

Another branch flows toward the Paraná and Uruguay rivers, where millions depend on an increasingly uncertain water supply.

Here, recovered water makes it possible to sustain production without collapse, nourish restored wetlands like the Iberá Marshes, and strengthen the water resilience of urban areas in the Southern Cone.

The old Guaraní songs, which spoke of “the mother water that walks,” echo once more.

The journey of water is neither linear nor simple.

It is a web of memory, engineering, community, and faith.

It is not just about moving water—it is about restoring the broken bonds between climate, land, and those who dwell in it.

“The Water That Forgot Its Name”

An Andean Folk Tale

The elders say that, long ago, water knew how to say its name.

When it fell as rain, it whispered: “Ñawi.”

When it ran through rivers, it murmured: “Mayu.”

And when it slept underground, it dreamed saying: “Ukhu Yaku” — the deep water.

But one day, people stopped listening.

They built walls that silenced rivers, broke mountains that were the lungs of water, and spoke only in harsh tongues that could not translate the songs of the sky.

And so, water, saddened, forgot its name.

And without a name, it began to lose itself—to vanish into vapor with no destination, to dry in echoless wells.

A child named Inti Sayri lived high on a hill with his grandmother.

She still spoke with the stones and taught him how to listen to silence.

One night, the boy dreamed he walked through a dry riverbed filled with fish bones.

And there, among the cracks, he heard a very soft voice saying,

“Yaku... Yaku...”

He woke up crying.

His grandmother told him, “That is the true name. Water has spoken to you because it wants to return.”

So the boy took a clay vessel, climbed the highest hill, and from there, he called water by its true name.

He did not shout. He whispered—as one speaks to sacred things.

That night, it rained. Not with fury, but with tenderness.

The water remembered who it was.

Since then, in the villages of the highlands, when a child is born, they are taught to say “Yaku” before any other word—

So that water may never again forget its name.

Custodians of the Flow

Water belongs to no one, but we all belong to it.

On a continent of contrasts—glaciers in the south, jungles in the north, deserts in between—water management cannot rely solely on maps, laws, or infrastructure.

It must also be an act of reciprocity.

The La Vena Sur project does not see water as a resource, but as a living being that requires guardians, agreements, and fair paths.

1. The Custodians: Networks of Vigilance and Care

A network of Water Custodians will be established, composed of:

Indigenous elders and community representatives

Hydrological technicians and regenerative biologists

Farmers practicing sustainable methods

Youth and children who inherit the water

These custodians are not “guards” or “owners,”

but listeners of water—tasked with reporting, preventing, celebrating, and restoring.

2. Circular and Pluricultural Governance

Inspired by models such as the Kichwa Cabildo, the Mapuche Lafkenche Council, and the community assemblies of the Chaco, we propose circular governance where:

The State guarantees,

The communities decide,

Science verifies,

Culture interprets,

And Nature participates.

This means water cannot be privatized, nor managed without free, prior, and informed consultation in Indigenous or ecologically fragile territories.

3. A Continental Ethical Treaty

We propose a Southern Water Ethical Treaty, signed by regional nations, Indigenous organizations, universities, cooperatives, and local governments.

This treaty does not seek to impose regulations, but to affirm shared principles:

Aquifer regeneration as an intergenerational right

The free flow of water to restore ecosystems

Cultural protection of water as a sacred element

Equitable access without extractive profit

Only if water flows with justice, can life blossom with dignity.

Living Infrastructure

La Vena Sur is not a mega-project. It does not seek to tame water, but to accompany it.

Every technological component must serve the landscape—not the other way around. It must align with the rhythm of the earth and the pulse of its inhabitants.

1. Flexible Deep-Transfer Pipelines

Inspired by bio-integrated irrigation systems and lightweight naval engineering, we propose modular, floating pipelines extending from Antarctic-adjacent collection points to protected Patagonian bays.

These pipelines are durable, low-maintenance, and adaptable to needs.

They operate as discreet arteries—silent and respectful of marine life.

2. Regenerative Rafts

Along the route, biological floating rafts serve a dual purpose:

Naturally filtering water via floating roots and microorganisms

Monitoring temperature, salinity, oxygen, and flow through integrated sensors

These rafts are mobile and replicable, serving as ecological checkpoints along the aquatic journey.

3. Hydric Acupuncture on Land

Once water reaches land, a hydric acupuncture strategy is activated:

Restoration of high-Andean lagoons as natural sponges

Controlled infiltration into underground aquifers using deep percolation techniques

Creation of community micro-basins where water is distributed equitably and symbolically

All actions are coordinated with local communities, prioritizing traditional systems like cochas, amunas, and jagüeyes.

4. Continental Replicability

The model is adaptable to other zones:

Northern Chile and Peru, where tropical glaciers are vanishing

The dry Chaco, with vulnerable underground reserves

The Greater Pantanal, as a point of continental biome equilibrium

Each replication must respect local biocultural conditions, with prior climatic and social evaluations—ensuring that technology enhances, rather than replaces, local knowledge.

The infrastructure of La Vena Sur is not a wound upon the earth—it is a wise seam, mending what was broken and letting flow what had been contained.

Water Culture

In every drop, a story.

In every stream, a song.

La Vena Sur will not be complete if it does not sing—

If it does not tell its steps.

If it does not sow in the minds and hearts of those who walk with it.

Here, water teaches, inspires, and transforms.

1. Water Schools

Vena Sur Spaces will be established in both rural and urban schools, with an intercultural and multilingual approach.

These spaces will serve as:

Learning centers on the water cycle, watersheds, and regeneration.

Places for exchange between Indigenous, farming, and scientific knowledge.

Workshops for art, music, writing, and play, where water is the main character.

Every child will learn where the water they drink comes from,
and will feel part of the cycle—not outside it.

2. Water Routes and Oral Memory

Water walking routes will be organized along the Vena Sur path, following ancient Indigenous trails, transhumance routes, and now-dry watercourses.

Along these routes:

Stories, songs, and myths about water will be collected.

Community documentaries will be recorded.

Multigenerational chronicles will be written, preserving native languages.

Water will not only irrigate the land: it will once again water the word.

3. Water Art and Living Memory

Open calls for muralism, art installations, dance, and textile arts

will be held in communities allied with the project. Each community will be invited to create a “Water Totem,” a collective artwork representing their connection to water—their pain, their hope.

By gathering these totems along the journey, La Vena Sur becomes a living museum, a creative artery.

4. Water Festivals

Annual Living Water Festivals will be held in key project locations: Antarctica – Patagonia – Altiplano – Amazon – Brazilian Northeast.

These gatherings will combine:

Ancestral and contemporary music,

Traditional cuisine with a water-centered approach,

Gratitude ceremonies,

Community and poetic forums.

Because water is also something to celebrate,
and that shared joy is part of its protection.

Future in the Current

La Vena Sur is not an emergency. It is an emergency transformed into hope.

When water flows, so does time—and with it, we must learn to look far ahead, to plan with the patience of rivers and the memory of glaciers.

1. Risks and Resilience

Like any large-scale water project, La Vena Sur faces risks:

Accidental contamination at transit points.

Territorial conflicts in catchment or recharge zones.

Unequal use or hoarding if there is no fair governance.

Unexpected climate impacts affecting availability.

That's why the vision includes:

Real-time monitoring systems.

Ethical governance protocols and conflict resolution.

Interterritorial water justice committees.

Ongoing environmental assessments with community participation.

2. A Generational Pact

Every participating country, every guardian community, every child who learns, is part of a pact between generations.

The water being replenished today is not for immediate use—it is a reserve for tomorrow's drought, a thread of the future.

For this reason, La Vena Sur is integrated into educational programs, rural development plans, and national climate strategies.

3. An Artery That Inspires Others

As this vein is born, others may follow:

Veins of the Altiplano, connecting high lakes and ravines.

Atlantic Veins, restoring internal rivers in Brazil and Uruguay.

Cerrado Veins, rescuing springs in the dry heartland.

Subterranean Veins, reactivating invisible aquifers.

La Vena Sur is not a closed map. It is a living cartography that can expand, replicate, and transform.

4. To Dream Is Also to Act

This document is not a utopia. It is a viable proposal, rooted in technical foundations, human networks, and ecological vision.

But to flow, it needs those who read, listen, plant, manage, and resist. It needs peoples who choose to care for water—not as a commodity, but as a living being.

La Vena Sur beats.

Let no one block its course.

La Vena Sur

La Vena Sur is born from the deepest South—from the ancient purity of Antarctic ice and the modern urgency of parched lands, collapsed aquifers, and peoples thirsty for water... and dignity.

This project traces a regenerative water artery across South America—from the far south to the most vulnerable regions of Brazil's northeast, the Bolivian Altiplano, the dry Chaco, and the Caribbean coast. It is not merely infrastructure: it is a vital gesture, a tool to heal what drought, reckless extraction, and neglect have harmed.

Along its path, water becomes a teacher: it educates in schools, speaks through myths, flows through the hands of farmers, sages, and artists. It connects with ancestral worldviews, flexible technologies, and ancient routes of trade and resistance. La Vena Sur does not seek to impose—it seeks to revive the territories' own capacity to hold water and sustain life.

It does not seek profit, but balance.

And its strength lies not only in engineering, but in the communities that embrace, protect, and dream it.

Conclusion | Let the South Flow Too

Water is older than fire. And newer than tomorrow.

South America is called not only to be the lungs of the world, but the artery of the planet's water future.

La Vena Sur invites us to act—before thirst becomes conflict, before aquifers die, before the water knowledge held in Indigenous voices is lost forever.

This project is not the end.

It is a radically hopeful beginning.

An invitation to see water not as a resource, but as a relationship.

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